Graphics 1: Isometric Sketching and Coded Plans
ENGR 1182
Today’s Learning Objectives

- Develop visualization skills using coded plans and snap cubes
- Use coded plans to sketch objects in isometric view
Isometric Sketches

Isometric sketches represent 3D objects in 2D space. They are made as if you are looking down the diagonal of a cube. Shapes and angles are distorted equally in isometric view.
Coded Plans

Coded plans define simple objects which can be made from blocks.

Each number represents how tall the stack of blocks is at that location.
Isometric Sketches from Coded Plans

- Lines are only shown where surfaces intersect.
- Hidden edges are not shown in isometric view.
In-Class Assignment (1 of 1)

Example:

DRAW AN ISOMETRIC SKETCH OF EACH OBJECT AS DEFINED BY ITS CODED PLAN
Important Takeaways

- 3D objects can be represented in 2D by sketching in isometric view.
- Coded plans are a blueprint for drawing simple objects.
- Lines are drawn only where surfaces intersect, and hidden features are not shown.
Preview of Next Class

- Isometric Sketching From Different View Points
  - Drawing objects from different views in isometric

- Inclined Planes and Curved Surfaces in Isometric
  - Adding new details to isometric sketches
  - Understanding how inclined planes and curved surfaces appear in isometric